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INVENTORY OF U. S. VESSELS IN THE CENTRAL AND WESTERN PACIFIC. PHASE I--SUMMARY OF PUBLIC RECORD

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INTRODUCTION

With implementation of the Magnuson Fishery Conservation Management Act (MFCMA) in 1976, the Southwest Fisheries Center Honolulu Laboratory, National Marine Fisheries Service (NMFS), became responsible for providing much of the biological and economic assessments as well as general data summaries for use in developing fishery management plans. In the process of carrying out these assessments and data analyses, it became clear to the NMFS and the Western Pacific Regional Fishery Management Council (Council), which has the responsibility of actually preparing the fishery management plans, that an up-to-date, detailed vessel inventory was needed for the central and western Pacific. Such an inventory could be used, it was felt at the time (circa early 1980), as a statistical frame for biological and socioeconomic surveys and as a basis for describing the fisheries occurring in the area.

As it turned out, this belief was too optimistic. As will be described in some detail in the following paragraphs, the public record proved to be incomplete or substantially out of date in some areas while in other cases vessels used for fishing could not be effectively separated from other usages, particularly a general pleasure category. Because of this, a second phase of the vessel inventory was initiated by the Council in cooperation with the Hawaii Division of Aquatic Resources and the Southwest Fisheries Center Honolulu Laboratory. The second phase involves the use of a questionnaire in Hawaii to supplement the available information, incorporation of more complete and accurate data that have become available from American Samoa and the Northern Mariana Islands, and updating the data files in Guam through contacts with fishermen organizations. The results of the second phase will be reported separately.

Thus with the support of the Council, the NMFS initiated what has come to be known as Phase I of the vessel inventory study by issuing a contract to assemble vessel data from the public records in American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and Hawaii. Vessels not documented or registered in these areas were not included in the inventory, except in the Northern Mariana Islands where the public record was supplemented. The project was undertaken by SMS Research, Inc. (Contract No. 80-ABC-00187) in September 1980.

Presented in this report are some simple summaries and cross tabulations showing the composition of the vessel population in each of the island areas in the central and western Pacific. The summaries are based on the computer tape submitted to the NMFS by the contractor in December 1981. The contractor's final report describes the data sources, problems in assembling the data, quality and completeness of the inventory, and the organization of the data on the computer tapes.

SOURCES AND DESCRIPTION OF DATA

American Samoa

At the time of this survey, the only public record of vessels in the Territory of American Samoa was that maintained by the U.S. Coast Guard in Pago Pago. They initiated the registration of boats in December 1973 and revised the data form in October 1976. This registration is not equivalent to "documentation" in the usual U.S. Coast Guard sense.

The inventory includes statistics on the owner, usage, boat configuration, and registration data. A total of 155 vessels are in the inventory. The computer tape format is shown in Figure 1.

The contractor described the quality of the data as being substantially incomplete, inaccurate, and out of date.

Guam

In the Territory of Guam, the public record in 1981 consisted of <600 vessels registered by the Guam Department of Public Safety and approximately 30 vessels documented by the U.S. Coast Guard Public Safety Office. The computerized data file includes information on the owner, registration data, and more detailed data on usage and vessel statistics. The computer tape format is shown in Figure 2.

The subcontractor (Pacific Basin Environmental Consultants) felt that the data from Guam Department of Public Safety Office represented a nearly complete inventory, but that it contained many outdated records and the address information contained the physical location of the owner not the mailing address.

Hawaii

In the State of Hawaii, there are two sources of vessel information. Vessels of 5 net tons or more must be documented with the U.S. Coast Guard if they are commercial vessels while pleasure boats may be at the option of the owner. If a vessel is not documented, it must be registered at the Harbors Division, Department of Transportation, State of Hawaii. Presumably, a vessel could be both documented and registered, but then it would have to have both identification numbers affixed to its hull. Because of this and other considerations, we feel that few boats would be both documented and registered. Vessels must be registered every year, while the computer file is updated quarterly. The data from both of these sources were placed on a single computer tape with a format encompassing the different types of information available from each source (Fig. 3a, b). Information includes the owner's name and address, vessel statistics, and usage of the vessel. There are 16,612 registered and 1,146 documented vessels on the computer tape.

The contractor believes both data records to be substantially up to date, correct, and accurate.

Northern Mariana Islands

For the Commonwealth of the Northern Mariana Islands, the contractor assembled statistics from several sources. These sources include the U.S. Coast Guard, which began registering vessels in early 1980, the Division of Marine Resources, which completed a survey of fishing vessels in 1981, and a special survey conducted on Rota by a subcontractor. The computer tape format is shown in Figure 4. The tape contains data on 32 Saipan vessels originating from the U.S. Coast Guard, 35 full-time and 105 part-time fishing boats from the Division of Marine Resources, and 9 vessels from the subcontractor.

The subcontractor indicated that the data from the last two sources were substantially current and accurate, and represent a considerable improvement over the U.S. Coast Guard data.

DATA SUMMARIES

American Samoa

For American Samoa, we did a simple cross tabulation of vessel usage by type of propulsion for the 155 vessels in the inventory. Most of the vessels (70) had neither usage nor type specified (Table 1). The largest usage category specified (61) was pleasure with the most common types being outboard powered (32) and inboard powered (20). There were 10 vessels identified as commercial fishing with the most common types being outboard (4) and inboard powered (5).

Guam

Table 2 presents the same results for Guam, that is a simple cross tabulation of vessel usage by propulsion type. Of the 734 vessels in the inventory, 672 were categorized as pleasure; most of these (511) were outboard powered. Only nine were designated as being commercial fishing vessels, and most of these were outboard powered.

Hawaii

For the vessel inventory from Hawaii, we have compiled information by both documented and registered vessels and compiled a number of cross tabulations to make use of the greater array of information available. Both the documented and registered segments of the data file contain a usage category called passenger/fishing (including charter). The category in practice seems to include only charter fishing boats, and we will refer to it as such in the text.

The same simple cross tabulation of vessel usage by propulsion type was compiled for Hawaii, except in this case by documented (Table 3a) and registered (Table 3b) vessels separately. For the documented vessels, the "oil screw" (diesel engine) type of propulsion was the most common for virtually all usage categories whereas for the registered vessels, outboard powered followed by inboard-outboard boats were the most common in nearly

all usage categories. Between the outboard and oil screw propulsion types for registered and documented vessels, respectively, the proportion of usage categories differs considerably as indicated in Figure 5.

Table 4 contains a simple frequency count by the length of the vessels. Registered vessels tend to be smaller as would be expected; the mode is 16 ft (5 m; 1,910 vessels or 11.5% of the total). The mode (the most abundant class) for documented is 36 ft (11 m; 67 vessels or 5.8%). The total number of registered boats in 1981 was 16,612 while that of documented vessels was 1,146, for a total of 17,758 vessels in the inventory of Hawaii.

Table 5 contains a cross tabulation of vessel usage by arbitrary length categories of the vessels for both documented and registered vessels combined. The most commonly recorded usage of boats in Hawaii was pleasure followed by commercial fishing. Other usages apparently involving fishing include charter fishing boats, passenger/fishing/towing, passenger/ocean research, fishing/ocean research, passenger/fishing/towing, and ocean research. Within the pleasure usage, the most common size was 16-24 ft (5-7 m) followed by the <14 ft (4 m) category. Because of the preponderance of pleasure vessels, the overall distribution by vessel size category appears nearly the same. Within commercial fishing usage, the most vessels again fell within the 16-24 ft (5-7 m) category, but the next most abundant categories were larger sized vessels, namely 25-30 ft (8-9 m) and 31-40 ft (>9-12 m) (Fig. 6).

Table 6a represents the frequency of vessel usage categories by the recorded island for registered boats in Hawaii. The latter category apparently represents the location of the boat. It can be seen that Oahu has the most boats by all usages. However, for commercial fishing boats, the Island of Hawaii has nearly as many vessels as Oahu, and Kauai is well represented. The recordings for Bougainville (in the Solomon Islands), California, Spain, and Tahiti are not easily explained. In Table 6b, frequencies of documented vessels by vessel usage and island of residence of the owner is given. The U.S. Coast Guard file of documented vessels contained on the computer tape does not include the actual location of the vessel; residences outside the State of Hawaii were placed in the category "other" in this summary. Again, most vessels by all usage categories appear to be located on Oahu. Most commercial fishing vessels appear to be on Oahu, followed by Hawaii and Maui. The percent occurrence of pleasure, commercial fishing, and charter boat usages are shown in Figure 7 by island.

Table 7 contains the distribution of registered vessels for type of vessel by usage category. Open motorboats were the most frequent type for both pleasure and commercial fishing usages. For commercial fishing, the cabin motorboat was the second most important type of vessel, but sailboats and auxiliary powered sailboats were also represented.

In Table 8 the frequency of registered vessels for type of vessel by type of propulsion is given. Most open motorboats and runabouts are outboard powered while most cabin motorboats are inboard-outboard powered. The distribution of propulsion type for sailboats indicates that the registrants do not understand how to complete the registration form.

Table 9 presents a cross tabulation of fuel type by vessel usage for Hawaii registered vessels. Most vessels fell in the joint category of using gasoline and pleasure usage. The fuel classification is not very useful because of the existence of the "other" category as well as missing values (not specified) and an "undefined code" in the data base.

The distribution of registered vessels for fuel type by propulsion type is given in Table 10. Most vessels using gasoline are outboard or inboard-outboard powered, whereas most vessels using diesel are inboard powered or are sailboats with an inboard engine. Most of the "other" and "undefined code" fuel types appear to be vessels with sail power only.

In Table 11 the frequency of registered vessels for usage by hull material is presented for all usage categories except "dealer." Fiber glass is the most common hull material and wood is the second most common.

Northern Mariana Islands

All of the vessels in the current inventory for the Commonwealth of the Northern Mariana Islands were outboard powered (Table 12). The usage of most of the vessels was not specified; of the seven that were specified, four were designated as commercial fishing.

Table 1.--Frequency of American Samoa vessels for vessel usage by type of propulsion.

Usage	Not specified	Outboard	Inboard	Inboard-		Sailing only	Sailing inboard	Sailing outboard		Manual	Other	Total
				outboard	outboard							
Pleasure	1	32	20	6		1	1	0		0	0	61
Commercial fishing	0	4	5	1		0	0	0		0	0	10
Passenger carrying	0	11	0	0		0	0	0		0	0	11
Livery	1	0	0	0		0	0	0		0	0	1
Manufacturer	0	0	1	0		0	0	0		0	0	1
Miscellaneous	0	0	1	0		0	0	0		0	0	1
Not specified	70	0	0	0		0	0	0		0	0	70
Total	72	47	27	7		1	1	0		0	0	155

Table 2.--Frequency of Guam vessels for vessel usage by type of propulsion.

Usage	Not specified	Inboard-					Sailing			Other	Total
		Outboard	Inboard	outboard	Sailing only	Sailing inboard	outboard	outboard	Manual		
Pleasure	4	511	49	25	28	22	31	0	0	2	672
Commercial fishing	2	5	2	0	0	0	0	0	0	0	9
Passenger/fishing ¹	2	0	1	0	0	0	0	0	0	0	3
Passenger carrying	8	7	1	1	0	0	0	0	0	0	17
Other commercial	0	5	3	0	0	0	0	0	0	0	8
Dealer	2	1	0	0	0	0	0	0	0	0	3
Miscellaneous	0	1	0	0	0	0	0	0	0	0	1
Freight only	4	0	0	0	0	0	0	0	0	0	4
Towing (tug)	7	0	0	0	0	0	0	0	0	0	7
Not specified	4	5	0	1	0	0	0	0	0	0	10
Total	33	535	56	27	28	22	31	0	0	2	734

¹Includes charter.

Table 3a.--Frequency of Hawaii documented vessels for vessel usage by type of propulsion.

Usage	Not specified	Barge	Dredge	Gas			Oil			Sail catamaran	Sail total	Documented total
				Catamaran	Screw	Water jet	Catamaran	Screw				
Pleasure	1	0	0	18	106	0	17	442	2	3	589	
Commercial fishing	0	0	0	2	9	0	1	129	0	0	141	
Passenger/fishing ¹	0	0	0	1	15	0	4	171	0	0	191	
Passenger carrying	1	0	0	13	17	0	24	71	0	2	128	
Miscellaneous	0	3	0	0	0	0	0	14	0	0	17	
Freight only	1	28	0	0	0	0	0	4	0	0	33	
Towing (tug)	0	0	0	0	0	0	1	28	0	0	29	
Tanker	1	2	0	0	0	0	0	0	0	0	3	
Passenger/fishing/ towing	0	0	0	0	0	0	0	1	0	0	1	
Oil exploitation	0	0	0	0	0	0	0	1	0	0	1	
Ocean research	0	0	0	0	0	0	0	1	0	0	1	
Passenger/ocean research	0	0	0	0	0	0	0	1	0	0	1	
Fishing/ocean research	0	0	0	0	0	0	0	1	0	0	1	
Fishing/freight	0	0	0	0	0	0	0	1	0	0	1	
Passenger/towing	0	0	0	0	1	0	0	2	0	0	3	
Passenger/freight	0	0	0	0	0	0	0	4	0	0	4	
Passenger/towing/ freight	1	0	0	0	0	0	0	0	0	0	1	
Passenger/fishing/ freight	0	0	0	0	0	0	0	1	0	0	1	
Passenger/freight	0	0	0	0	0	0	0	1	0	0	1	
Total	5	33	0	34	148	0	47	872	2	5	1,146	

¹Includes charter.

Table 3b.--Frequency of Hawaii registered vessels for vessel usage by type of propulsion.

Usage	Not specified	Inboard-		Sailing		Sailing		Manual	Other	Total
		Outboard	Inboard	outboard	only	inboard	outboard			
Pleasure	1	8,379	766	1,915	1,809	654	685	283	32	14,524
Commercial fishing	0	672	227	384	2	5	9	8	2	1,309
Passenger/fishing ¹	0	1	14	10	0	0	0	0	0	25
Passenger carrying	0	34	5	17	17	4	9	2	0	88
Other commercial	0	16	7	3	11	1	1	0	1	40
Livery	0	11	73	5	54	2	11	6	2	164
Dealer	34	6	4	0	3	0	0	0	0	47
Fee exemption/ youth group	0	5	2	1	33	0	2	0	1	44
Fee exemption/ government	0	129	22	17	100	1	0	3	6	278
Miscellaneous	0	41	5	2	5	4	2	8	2	69
Not specified	24	0	0	0	0	0	0	0	0	24
Total	59	9,294	1,125	2,354	2,034	671	719	310	46	16,612

¹Includes charter.

Table 4.--Frequency count of documented and registered vessels in Hawaii by length (ft) of the vessel.

Length ¹	Registered	Documented	Total
Not specified	59	0	59
5	4	0	4
6	22	0	22
7	223	0	223
8	178	0	178
9	206	0	206
10	325	0	325
11	506	0	506
12	1,518	0	1,518
13	1,156	0	1,156
14	1,810	0	1,810
15	913	0	913
16	1,910	0	1,910
17	825	0	825
18	1,167	0	1,167
19	1,008	0	1,008
20	758	0	758
21	602	0	602
22	386	0	386
23	361	0	361
24	795	0	795
25	311	5	316
26	239	12	251
27	149	24	173
28	178	31	209
29	113	39	152
30	157	65	222
31	57	35	92
32	89	48	137
33	61	50	111
34	61	50	111
35	46	52	98
36	88	67	155
37	27	48	75
38	46	42	88
39	21	54	75
40	52	57	109
41	26	37	63
42	24	36	60
43	14	28	42
44	14	32	46
45	21	29	50
46	9	15	24
47	3	20	23
48	9	20	29

Table 4.--Continued.

Length ¹	Registered	Documented	Total
49	6	13	19
50	15	16	31
51	2	10	12
52	5	12	17
53	1	4	5
54	4	7	11
55	7	6	13
56	5	11	16
57	2	7	9
58	1	4	5
59	0	4	4
60	1	15	16
61	1	11	12
62	1	5	6
63	4	6	10
64	1	4	5
65	1	3	4
66	0	5	5
67	0	4	4
68	0	5	5
69	0	3	3
70	0	4	4
71	0	3	3
72	0	5	5
73	1	3	4
74	1	1	2
75	0	3	3
76	0	2	2
77	0	2	2
78	0	1	1
79	0	1	1
80	0	2	2
81	0	2	2
83	0	1	1
86	0	1	1
87	0	1	1
88	0	1	1
90	1	0	1
91	0	3	3
92	0	1	1
94	0	2	2
97	0	1	1
99	0	2	2
100	1	0	1
101	0	1	1
102	1	1	2

Table 4.--Continued.

Length ¹	Registered	Documented	Total
103	0	1	1
105	0	1	1
106	0	1	1
110	0	3	3
112	0	2	2
113	0	1	1
115	1	0	1
117	0	1	1
118	0	1	1
120	0	1	1
126	0	1	1
135	1	0	1
142	0	1	1
143	0	1	1
145	0	1	1
152	0	1	1
160	0	2	2
165	1	0	1
166	0	1	1
170	0	1	1
175	0	1	1
178	0	1	1
180	0	6	6
192	0	1	1
196	0	1	1
197	0	3	3
200	0	1	1
201	0	1	1
222	0	1	1
226	0	1	1
229	0	1	1
240	0	1	1
250	0	1	1
260	0	1	1
263	0	2	2
286	0	1	1
307	0	1	1
315	0	1	1
468	0	1	1
504	0	1	1
529	0	1	1
637	0	1	1
Total	16,612	1,146	17,758

¹Recorded lengths of registered vessels were truncated to the nearest whole foot.

Table 5.--Frequency usage by length of vessels the combined documented registered vessels in Hawaii.

Usage	Not specified	<14 ft	14-15 ft	16-24 ft	25-30 ft	31-40 ft	41-60 ft	61-100 ft	101-150 ft	151-250 ft	>251 ft	Total
Not specified	24	0	0	0	0	0	0	0	0	0	0	24
Pleasure	0	3,793	2,594	6,633	1,009	750	315	18	1	0	0	15,113
Commercial fishing	0	55	50	932	213	121	50	26	1	2	0	1,450
Passenger/fishing ¹	0	0	0	7	46	103	57	3	0	0	0	216
Passenger carrying	0	2	12	52	26	53	34	30	5	1	1	216
Other commercial	0	16	3	13	3	2	2	0	1	0	0	40
Livery	0	88	24	41	10	0	1	0	0	0	0	164
Dealer	35	0	0	8	3	0	1	0	0	0	0	47
Fee exemption/ youth	0	29	6	4	2	3	0	0	0	0	0	44
Fee exemption/ government	0	127	28	98	7	10	5	1	1	1	0	278
Miscellaneous	0	28	6	24	4	4	13	2	3	2	0	86
Freight only	0	0	0	0	0	0	3	2	3	18	7	33
Towing (tug)	0	0	0	0	0	0	8	15	6	0	0	29
Tanker	0	0	0	0	0	0	0	0	0	2	1	3
Passenger/fishing/ towing	0	0	0	0	0	0	1	0	0	0	0	1
Oil exploitation	0	0	0	0	0	1	0	0	0	0	0	1
Ocean research	0	0	0	0	0	0	0	1	0	0	0	1
Passenger/ocean research	0	0	0	0	0	0	1	0	0	0	0	1
Fishing/ocean research	0	0	0	0	0	0	0	1	0	0	0	1
Fishing/freight	0	0	0	0	0	0	0	1	0	0	0	1
Passenger/towing	0	0	0	0	0	2	0	1	0	0	0	3
Passenger/freight	0	0	0	0	0	1	3	0	0	0	0	4
Passenger/towing freight	0	0	0	0	0	0	0	0	0	0	1	1
Passenger/fishing/ freight	0	0	0	0	0	0	1	0	0	0	0	1
Passenger/fishing/ freight	0	0	0	0	0	1	0	0	0	0	0	1
Total	59	4,138	2,723	7,812	1,323	1,051	495	100	21	26	10	17,758

¹Includes charter.

Table 6a.--Frequency of Hawaii registered vessels by "island" and usage category.

Usage	Not specified	Bougainville	California	Hawaii	Kauai	Lanai	Maui	Molokai	Niihau	Oahu	Spain	Tahiti	Total
Not specified	18	0	0	1	0	0	0	0	0	5	0	0	24
Pleasure	0	1	2	1,763	986	55	913	271	11	10,521	1	0	14,524
Commercial fishing	0	0	0	412	225	7	132	31	0	502	0	0	1,309
Passenger/fishing ¹	0	0	0	8	5	0	7	2	0	3	0	0	25
Passenger carrying	0	0	0	11	20	1	32	1	0	23	0	0	88
Other commercial	0	0	0	2	2	0	14	0	0	22	0	0	40
Livery	0	0	0	9	15	2	35	0	0	103	0	0	164
Dealer	1	0	0	8	1	0	2	0	0	35	0	0	47
Fee exemption/youth	0	0	0	1	0	0	0	0	0	43	0	0	44
Fee exemption/government	0	0	0	13	8	0	4	1	0	251	0	1	278
Other	0	0	0	7	1	2	10	0	0	49	0	0	69
Total	19	1	2	2,235	1,263	67	1,149	306	11	11,557	1	1	16,612

¹Includes charter.

Table 6b.--Frequency of Hawaii documented vessels by island of residence of owner and usage category.

Usage	Other	Oahu	Kauai	Hawaii	Maui	Molokai	Lanai	Total
Pleasure	43	462	14	34	35	1	0	589
Commercial fishing	2	97	5	25	11	1	0	141
Passenger/fishing ¹	2	84	5	67	29	1	3	191
Passenger carrying	6	47	25	20	30	0	0	128
Miscellaneous	0	16	0	1	0	0	0	17
Freight only	1	30	2	0	0	0	0	33
Towing (tug)	3	24	1	1	0	0	0	29
Tanker	1	2	0	0	0	0	0	3
Passenger/fishing/ towing	0	0	0	1	0	0	0	1
Oil exploitation	0	1	0	0	0	0	0	1
Ocean research	0	1	0	0	0	0	0	1
Passenger/ocean research	0	0	0	1	0	0	0	1
Fishing/ocean research	0	1	0	0	0	0	0	1
Fishing/freight	0	0	0	2	1	0	0	3
Passenger/towing	0	4	0	0	0	0	0	4
Passenger/freight	1	0	0	0	0	0	0	1
Passenger/towing/ freight	0	1	0	0	0	0	0	1
Passenger/fishing/ freight	0	0	0	0	0	1	0	1
Total	59	770	52	152	106	4	3	1,146

¹Includes charter.

Table 7.--Frequency of Hawaii registered vessels for type of vessel by usage category.

Usage	Not specified	Cabin motorboat	Open motorboat	Runabout	Sailboat with auxiliary power		Motor vessel (>65 ft)	Other	Total
Not specified	23	0	0	0	0	0	0	1	24
Pleasure	1	1,683	5,653	3,392	1,015	2,159	7	614	14,524
Commercial fishing	0	472	490	286	8	7	0	46	1,309
Passenger/fishing	0	22	3	0	0	0	0	0	25
Passenger carrying	0	12	31	7	8	22	0	8	88
Other commercial	0	4	13	2	1	12	1	7	40
Livery	0	0	10	21	9	58	0	66	164
Dealer	33	1	6	1	0	3	0	3	47
Fee exemption/ youth	0	2	3	2	0	35	0	2	44
Fee exemption/ government	0	22	91	45	2	99	2	17	278
..... miscellaneous	0	4	27	4	4	6	0	24	69
Total	57	2,222	6,327	3,760	1,047	2,401	10	788	16,612

¹Includes charter.

Table 8.--Frequency of Hawaii registered vessels for type of vessel by type of propulsion.

Usage	Not specified	Inboard-		Sailing only		Sailing inboard		Sailing outboard		Manual	Other	Total
		Outboard	Inboard	outboard	only	only	inboard	outboard				
Not specified	57	0	0	0	0	0	0	0	0	0	0	57
Cabin motorboat	1	347	640	1,230	0	0	0	1	2	2	1	2,222
Open motorboat	0	5,507	137	529	3	0	0	7	130	14	6,327	
Runabout	0	2,989	165	556	0	0	0	3	43	4	3,760	
Sailboat with auxiliary power	0	21	26	2	8	608	381	0	0	1	1,047	
Sailboat	0	27	5	0	1,990	62	313	3	3	1	2,401	
Motor vessel (>65 ft)	0	2	7	0	1	0	0	0	0	0	10	
Other	1	401	145	37	32	1	14	132	25	788		
Total	59	9,294	1,125	2,354	2,034	671	719	310	46	16,612		

Table 9.--Frequency of Hawaii registered vessels for fuel type by vessel usage.

Usage	Not specified	Undefined code	Gasoline	Diesel	Other	Total
Not specified	18	6	0	0	0	24
Pleasure	1	1,377	11,478	819	849	14,524
Commercial fishing	0	8	1,095	197	9	1,309
Passenger/fishing ¹	0	0	16	9	0	25
Passenger carrying	0	11	62	6	9	88
Other commercial	0	11	22	7	0	40
Livery	0	42	104	0	18	164
Dealer	0	36	10	0	1	47
Fee exemption/ youth	0	18	9	1	16	44
Fee exemption/ government	0	59	148	20	51	278
Miscellaneous	0	5	48	7	9	69
Total	19	1,573	12,992	1,066	962	16,612

¹Includes charter.

Table 10.--Frequency of Hawaii registered vessels for fuel type by type of propulsion.

Usage	Not specified	Outboard	Inboard	Inboard- outboard	Sailing only	Sailing inboard	Sailing outboard	Manual	Other	Total
Not specified	19	0	0	0	0	0	0	0	0	19
Undefined code	40	44	1	8	1,410	4	21	37	8	1,573
Gasoline	0	9,189	653	2,190	4	237	659	42	18	12,992
Diesel	0	7	471	155	0	430	3	0	0	1,066
Other	0	54	0	1	620	0	36	231	20	962
Total	59	9,294	1,125	2,354	2,034	671	719	310	46	16,612

Table 11.--Frequency of Hawaii registered vessels for usage by hull material.

Usage	Not specified	Wood	Steel	Fiber glass/ plastic	Alumi- num	Other	Rubber/ fabric	Total
Not specified	24	0	0	0	0	0	0	24
Pleasure	1	2,804	34	10,639	507	226	313	14,524
Commercial fishing	0	382	3	874	12	37	1	1,309
Passenger/fishing ¹	0	2	0	21	1	1	0	25
Passenger carrying	0	13	0	65	1	3	6	88
Other commercial	0	3	2	29	0	2	4	40
Livery	0	7	0	145	5	4	3	164
Dealer	33	0	1	12	0	0	1	47
Fee exemption/ youth	0	9	0	34	0	0	1	44
Fee exemption/ government	0	23	2	209	23	15	6	278
Miscellaneous	0	12	5	42	4	0	6	69
Total	58	3,255	47	12,070	553	288	341	16,612

¹Includes charter.

Table 12.--Frequency of Northern Mariana Islands for vessel usage by type of propulsion.

Usage	Not specified	Inboard-		Sailing only		Sailing inboard		Sailing outboard		Manual	Other	Total
		Outboard	Inboard	outboard	only	only	only	only	only			
Pleasure	0	1	0	0	0	0	0	0	0	0	0	1
Commercial fishing	0	4	0	0	0	0	0	0	0	0	0	4
Passenger carrying	0	2	0	0	0	0	0	0	0	0	0	2
Not specified	1	124	13	0	0	0	0	0	0	0	0	138
Total	1	131	13	0	0	0	0	0	0	0	0	145

Number	Length of field	Codes	Description
1	1	2=American Samoa	Country of registration
2-27	26		Owner's name
28-29	2	01-12, ØØ	Month of birth
30-31	2	00-21, ØØ	Day of birth
32-33	2	00-31, ØØ	Year of birth
34-40	7		Citizenship
41-67	27		Owner's address
68-87	20		Hull serial number
88	1	1=Guam 2=American Samoa 5=California	State of principal use
89-97	9	Columns 89,90 AS=American Samoa Columns 96,97 AZ=Old numbers (all vessels) PU=Private use (pleasure) CF=Commercial fishing LR=Livery or rental CP=Carrying passengers for hire CU=Other commercial DA=Dealer XF=Government	Previous ("present") bow number
98-112	15		Make of boat
113-115	3		Length in feet
116-119	4		Year built
120	1	1=wood 2=steel 3=plastic/fiberglass 4=aluminum 5=other 6=rubber/fabric Ø=none recorded	Hull material

Figure 1.--Format of the compute tape containin the American Samoa
vessel nventory.

Column No.	Length of field	Codes	Description
121	1	1=outboard 2=inboard 3=inboard/outboard 4=sail only 5=sail & inboard 6=sail & outboard 7>manual 8=other Ø=none recorded	Propulsion
122	1	1=runabout 2=cruiser 3=house 4=sailing 5=other Ø=none recorded	Type of vessel
124-125	2	01=pleasure 02=commercial fishing 03=charter fishing 04=commercial passenger 05=other commercial 06=livery 07=dealer 08=manufacturer 09=youth group 10=government 11=other ØØ=none recorded	Use
126	1	1=original number 2=transfer of ownership 3=renewal of number 4=change in state of principal use Ø=none recorded	Reason for application
127-135	9	Columns 127, 128 AS=American Samoa See above ("previous bow number") for columns 134, 135	Present registration number
136-137	2	01-12	Month of expiration
138-139	2	76-84	Year of expiration
140-150	11		Name of vessel
151-160	10		-blanks-
161-164	4	2001-2155	SMS identification code

Figure 1.--Continued.

Column No.	Length of field	Codes	Description
1	1	1=Guam	Country of registration
2-27	26		Owner's name
28-29	2	01-12, ØØ	Month of birth
30-31	2	00-31, ØØ	Day of birth
32-33	2		Year of birth
34-40	2		Citizenship
41-67	27		Owner's address
68-87	20		Hull serial number
88	1	1=Guam	State of principal use
89-97	9	Columns 89-90 GM=Guam	Previous ("present") bow number
		Columns 96-97 AØ	
98-112	15		Make of boat
113-115	3		Length of vessel in feet
116-119	4		Year built
120	1	1=wood 2=steel 3=plastic/fiberglass 4=aluminum 5=other 6=rubber/fabric Ø=none recorded	Hull material
121	1	1=outboard 2=inboard 3=inboard/outboard 4=sail only 5=sail & inboard 6=sail & outboard 7>manual 8=other Ø=none recorded	Propulsion

Figure 2.--Format of the computer tape containing the Guam vessel inventory.

Guam

Column No.	Length of field	Codes	Description
122	1	1=runabout 2=cruiser 3=house 4=sailing 5=other Ø=none recorded	Type of vessel
123	1	1=gasoline 2=diesel 3=other Ø=none recorded	Fuel Type
124-125	2	01=pleasure 02=commercial fishing 03=charter fishing 04=commercial passenger 05=other commercial 06=livery 07=dealer 08=manufacturer 09=youth group 10=government 11=other ØØ=none recorded	Use
126	1	1=original number 2=transfer of ownership 3=renewal of number 4=change in state of principal use Ø=none recorded	Reason for application
127-135	9	Same as columns 89-97	Present registration number
136-137	2	01-12, ØØ	Month of expiration
138-139	2	76-84	Year of expiration
140-150	11		Name of vessel
151-160	10		-blanks-
161-164	4	1001-1706	SMS Identification code

Figure 2.--Continued.

Column No.	Length of field	Codes/Description
1-7	7	Vessel Number)
8-9	2	Vessel Alpha) Boat registration number
10-36	27	Owner's name (Last name, first, mid initial)
37-63	27	Owner's address
64-65	2	Number of co-owners (00-99)
66-67	2	Month of expiration (01-12)
68-69	2	Year of expiration (01-82)
70	1	Type of registration
		1 = new
		2 = transfer of ownership
71-97	27	City and state
98-102	5	Zip code
103	1	Place kept (1=moored on water, 2=on land)
104-131	28	Island and/or harbor
132	1	Type of vessel
		1 = cabin motorboat
		2 = open motorboat
		3 = runabout
		4 = auxiliary powered sailing vessel
		5 = sailing vessel
		6 = motor vessel (more than 65 feet in length)
		7 = other
133-136	4	Year built (1901-1981)
137-139	3	Length of vessel (feet: 001-999)
140-141	2	Length of vessel (inches)
142	1	Hull material
		1 = wood
		2 = steel
		3 = fiberglass/plastic
		4 = aluminum
		5 = other
		6 = rubber/fabric
143-162	20	Builder's serial number
163	1	Fuel type
		1 = gasoline
		2 = diesel
		3 = other

Figure 3a.--Format of the computer tape containing the inventory of vessels registered by the Hawaii Department of Transportation.

Column No.	Length of field	Codes/Description
164	1	Propulsion <ul style="list-style-type: none"> 1 = outboard 2 = inboard 3 = inboard/outboard 4 = sail only 5 = sail & inboard 6 = sail & outboard 7 = manual 8 = other
165-166	1	Usage <ul style="list-style-type: none"> 01 = pleasure 02 = commercial fishing 03 = charter fishing 04 = commercial passenger 05 = other commercial 06 = livery 07 = dealer 08 = manufacturer 09 = fee exempt youth group 10 = fee exempt government 11 = other
167	1	New code*
168	1	-blank-
169-244		blanks, documented vessel information
245-248	4	-blank-

* Not identified on information provided by Coast Guard.
Blank for most records.

Figure 3a.--Continued.

Column No.	Length of field	Codes/Description
1-7	7	vessel number
8-9	2	blank
10-36	27	Owner's name(last, first, middle initial)
37-63	27	Owner's address
64-70	7	blank
71-97	27	City and state of residence (sometimes city & country)
98-102	5	Zip code
103-132	30	blanks
133-136	4	Year built
137-139	3	Length of vessel (feet)
140-141	2	Length of vessel (tenths of a foot)
142-164	23	blanks
165-166	2	Usage, "service" 01=pleasure 02=commercial fishing 03=passenger & fishing (charter) 04=passenger carrying 05=other commercial 06=livery 07=dealer 08=manufacturer 09=fee exempt youth group 10=fee exempt government 11=miscellaneous 12=freight only (e.g. barge) 13=towing (tug) 14=dredging 15=tanker 16=passenger, fishing, towing 17=oil exploitation 18=ocean research 19=passenger / ocean research 20=fishing and ocean research 21=fishing and freight 22=passenger and towing 23=passenger and freight 24=passenger, towing & freight 25=passenger, fishing & freight

Figure 3b.--Format of the computer tape containing the inventory of vessels documented in Hawaii by the U.S. Coast Guard.

Documented Vessels - Hawaii

<u>Column No.</u>	<u>Length of field</u>	<u>Codes/Description</u>
167-168	2	blanks
169-186	18	Name of vessel
187-194	8	Rig <ul style="list-style-type: none"> Brg = barge Drg. = dredge Ga.Ct. = gas catamaran Ga.s. = gas screw Jtg = gas water jet Ol.Ct. = oil catamaran Ol.s. = oil screw Sail = sail Sail.Ct. = sail catamaran
195-198	4	Gross tonnage
199-202	4	Net tonnage
203-204	2	Breadth of vessel (feet)
205-206	2	Breadth of vessel (tenths of a foot)
207-208	2	Depth of vessel (feet)
209-210	2	Depth of vessel (tenths of a foot)
211-214	4	Horsepower
215-244	30	City and state (or country) where built
245-248	4	SMS Identification number (0001-1142)

Figure 3b.--Continued.

Column No.	Length of field	Codes	Description
1	1	3-Northern Marianas	Country of registration
2-27	26		Owner's name
28-29	2	01-12, ØØ	Month of birth
30-31	2	00-31, ØØ	Day of birth
32-33	2		Year of birth
34-40	7		Citizenship
41-67	27		Address
68-87	20		Hull serial number
88	1	3-Northern Marianas	State of principal use
89-97	9	No boats were previously registered	
98-112	15		Make of boat
113-115	3		Length in feet
116-119	4		Year built
120	1	1=wood 2=steel 3-plastic/fiberglass 4=aluminum 5-other 6=rubber/fabric Ø =none recorded	Hull material
121	1	1=outboard 2-inboard 3=inboard/outboard 4=sail only 5=sail & inboard 6=sail & outboard 7>manual 8=other Ø =none recorded	Propulsion
122	1	1=runabout 2=cruiser 3=house 4=sailing 5=other Ø =none recorded	Type of vessel

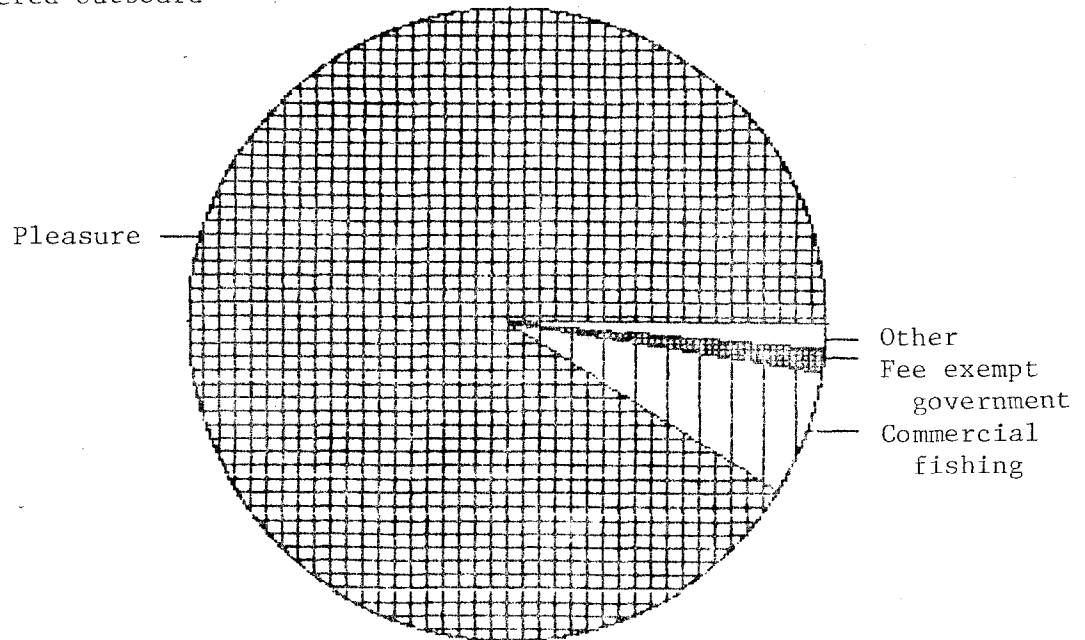
Figure 4.--Format of the computer tape containing the Northern Mariana Islands vessel inventory.

<u>Column No.</u>	<u>Length of field</u>	<u>Codes</u>	<u>Description</u>
123	1	1=gasoline 2=diesel 3=other Ø=none recorded	Fuel type
124-125	2	01=pleasure 02=commercial fishing 03=charter fishing 04=commercial passenger 05=other commercial 06=livery 07=dealer 08=manufacturer 09=youth group 10=government 11=other Ø=none recorded	Use
126	1	1=original 2=transfer of ownership 3=renewal of number 4=change in state of principal use Ø=none recorded	Reason for application
127-135	9	No registration number recorded	Resent registration Number
136-137	2	01-12 numeric	Month of expiration
138-139	2	76-84 numeric	Year of expiration
140-150	11	alpha	Name of vessel
151-152	2	Width of vessel (feet)	
153	1	Depth of vessel	
154-156	3	Cumulative horsepower	
157	1	Number of engines	
158-160	3	Fuel capacity	
161-164	4	SMS Identification code	

Figure 4.--Continued.

Registered outboard

Powered vessels

Outboard
pleasure

90.1

Commercial
fishing

7.2

Fee exempt
government

1.3

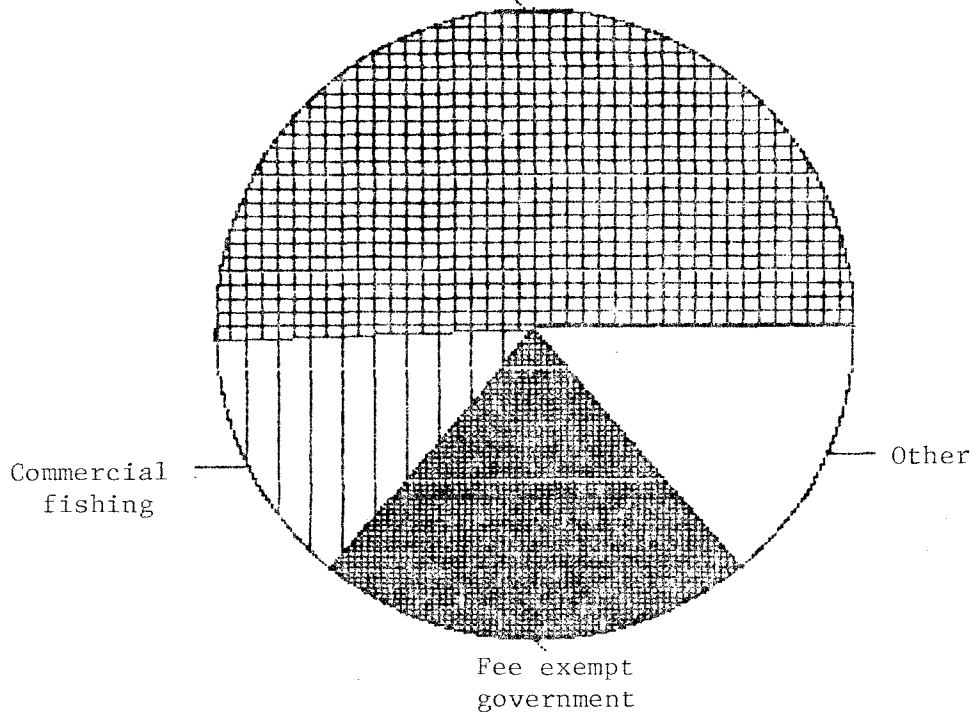
Other

1.2

Documented diesel engine

Pleasure

Powered vessels

Oil screw
pleasure

50.6

Commercial
fishing

14.7

Fee exempt
government

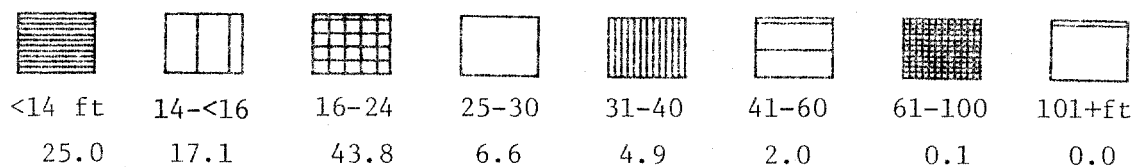
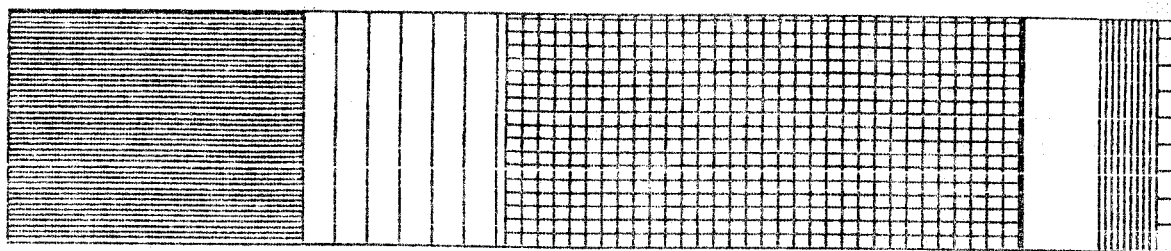
19.6

Other

14.9

Figure 5.--Percent composition of registered outboard powered vessels and documented diesel engine powered vessels by usage categories in Hawaii.

Pleasure



Commercial fishing

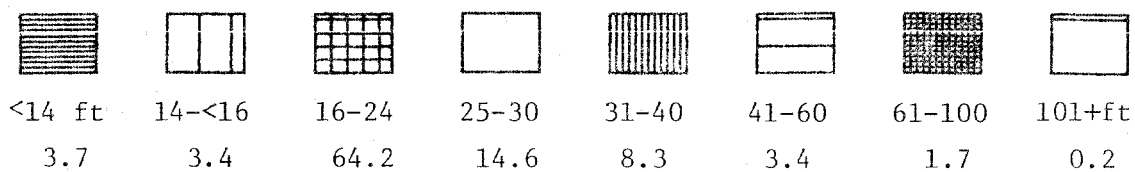
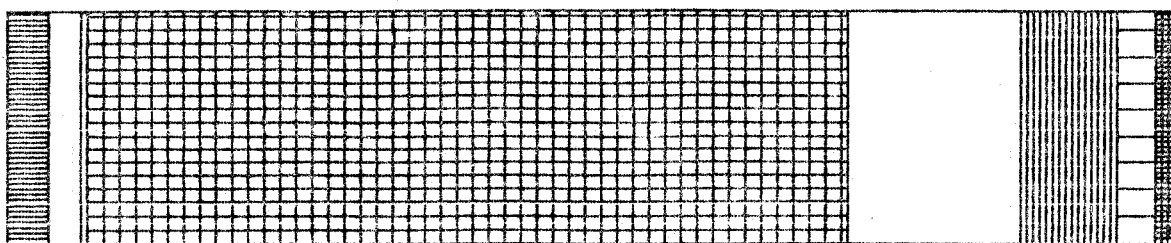
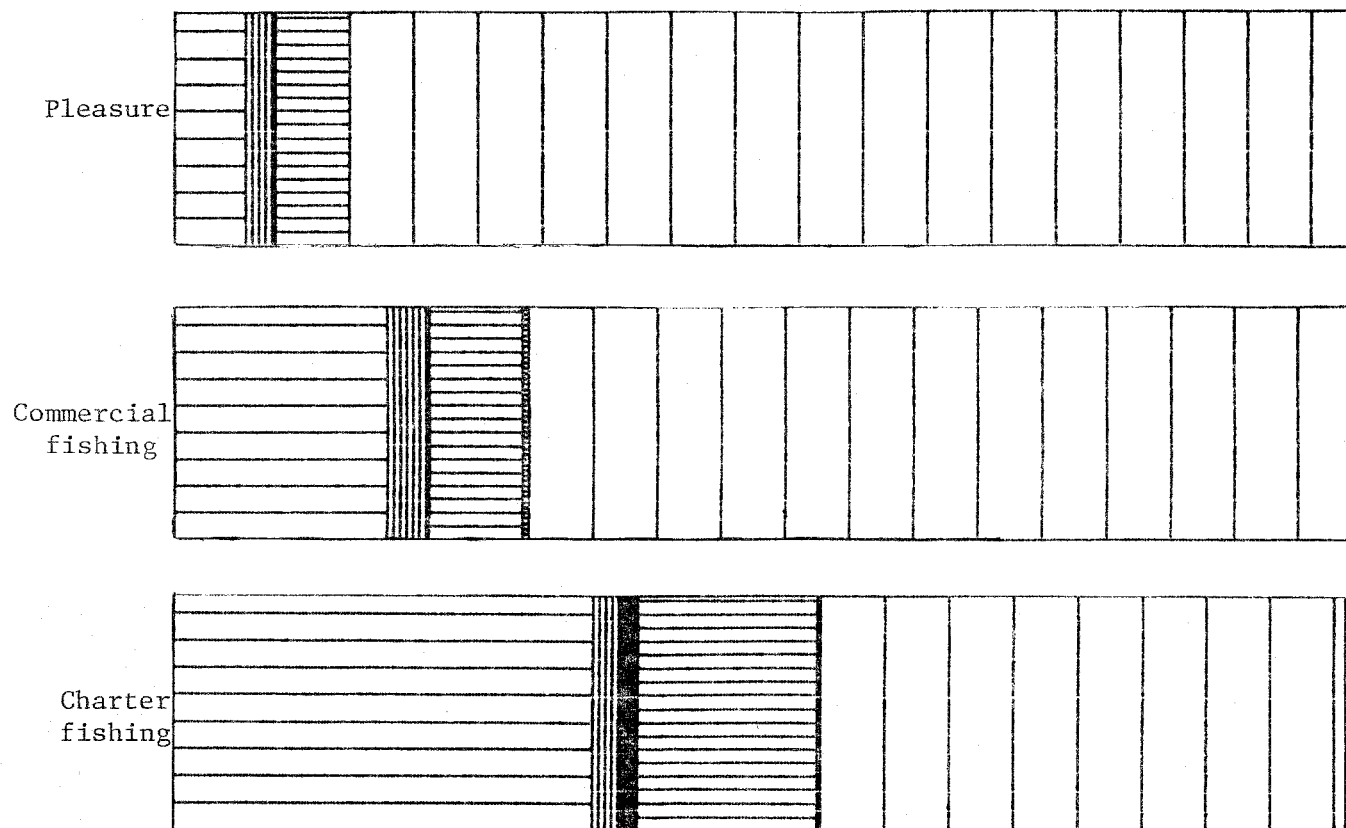


Figure 6.--Percent occurrence of pleasure and commercial fishing usages by length intervals for documented and combined vessels in Hawaii.

Documented Hawaii boats
percentage by island









						
	Hawaii	Kauai/Niihau	Lanai	Maui	Molokai	Oahu
Pleasure	6.2	2.5	0.0	6.4	0.1	84.6
Commercial fishing	17.9	3.5	0.0	7.9	0.7	69.7
Charter fishing	35.4	2.6	1.5	15.3	0.5	44.4

Figure 7.--Continued.

Registered Hawaii boats
percentage by island

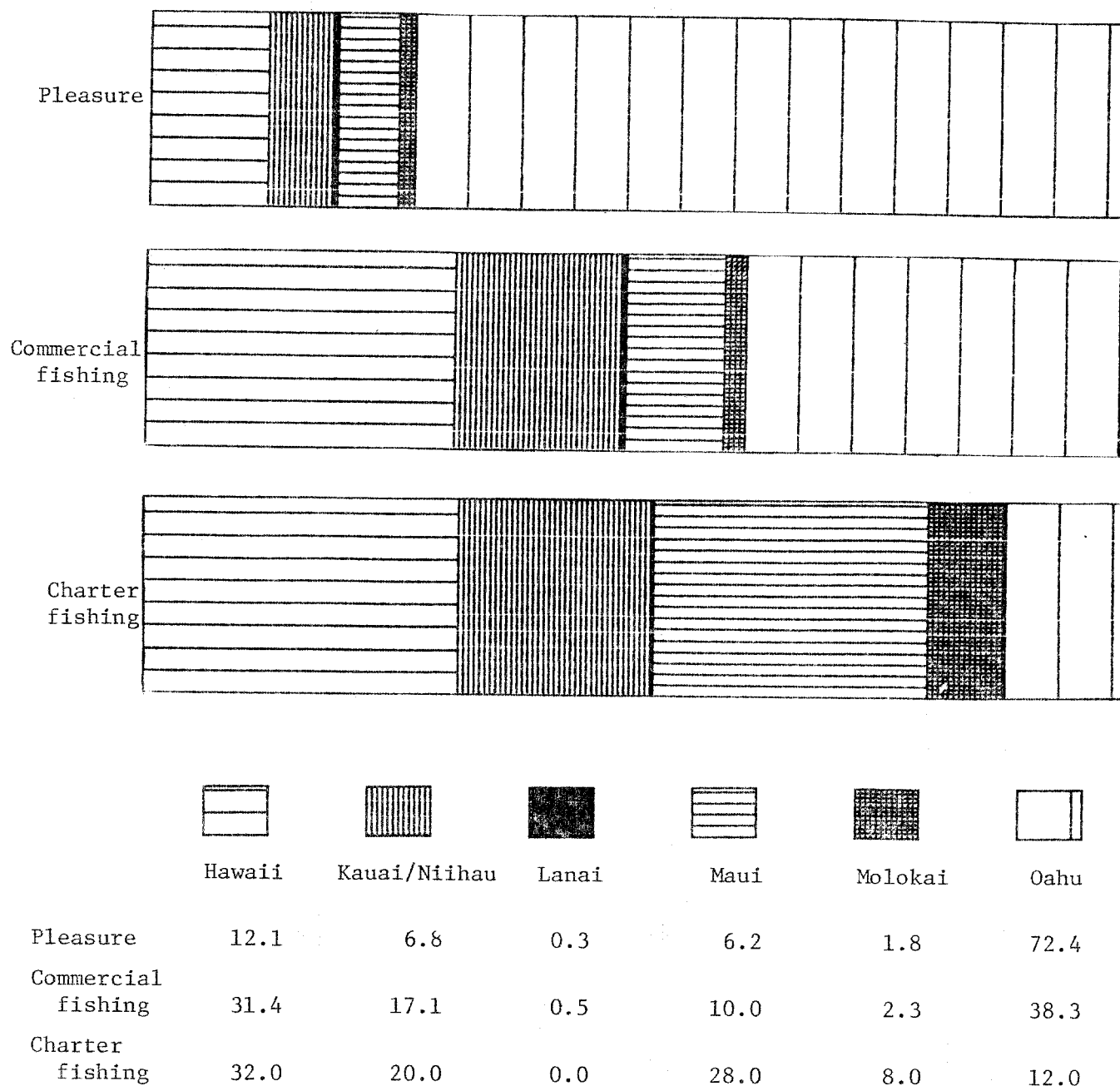


Figure 7.--Percent of pleasure, commercial fishing, and charter boat usages by island for documented and registered boats in Hawaii.